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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,994	11/14/2003	Shun-Huang Peng	BHT-3167-161	7367

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FALLS CHURCH, VA 22041

EXAMINER

ELLINGTON, ALANDRA

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/706,994

Applicant(s)

PENG ET AL.

Examiner

Alandra Ellington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment dated 2/7/05.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-10 is/are rejected.
- 7) ☒ Claim(s) 1,2 and 5-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Non-Final Rejection

Claim Objections

1. Claims 1, 2 and 5-10 are objected to because of the following informalities:
- a. With respect to Claim 1, rewrite the body of the claim as – a vacuum tube for connecting [the] a gauge with [the] a chamber; at least one plate for blocking [the] a plasma of the chamber from directly striking against [the] a sensor, disposed at [the] an inner wall of the vacuum tube; and at least one wire netting structure located on a front end of the vacuum tube near the chamber --.
 - b. With respect to Claim 5, rewrite the body of the claim as – a vacuum tube for connecting [the] a gauge with [the] a chamber; and two plates for blocking [the] a plasma of the chamber from directly striking against [the] a sensor, respectively and separately disposed at [the] an upper inner wall and [the] a lower inner wall of the vacuum tube --.
 - c. With respect to Claim 7, rewrite the body of the claim as – a) a vacuum tube connecting [the] a gauge with [the] a dry etch chamber; and b) at least one plate located on an inner wall of the vacuum tube and blocking [the] plasma particles of the dry etch chamber from directly striking against [the] a sensor --.
- Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2 and 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant Admitted Prior Art (hereinafter AAPA) in view of Lenzing et al (hereinafter Lenzing).

a. With respect to Claim 1, AAPA discloses a vacuum tube 3 for connecting a gauge 22 with a chamber 1, plasma of the chamber 1, and a sensor 22 disposed at an inner wall of the vacuum tube 3 (pg. 1 [0003], pg. 2 [0003-0004] {Fig. 1}). However, AAPA does not teach at least one plate for blocking the plasma of the chamber from directly striking against a sensor and at least one wire netting structure located on a front end of the vacuum tube near the chamber. Lenzing teaches a device with a tubular body 8 and a chamber 11 with at least one plate 39 for blocking fluid of the chamber 11 from directly striking against a sensor 23, and at least one wire netting structure 15 located in a front end of the tubular body 8 (col. 3 lines 45-67, col. 4 lines 60-64, col. 5 lines 1-15 {Figs. 1-3}). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the AAPA with the teachings of Lenzing to include at least one plate for blocking the plasma of the chamber from directly striking against a sensor and at least one wire netting structure located on a front end of the vacuum tube near the chamber for the purpose of reducing contamination of solids and fluid particles by diverting fluid flow around the sensor and within the chamber (col. 2 lines 55-63, col. 3 lines 45-67, col. 4 lines 60-64, col. 5 lines 1-15, col. 8 lines 28-34 {Figs. 1-3}).

b. With respect to Claim 2, AAPA does not teach at least one stainless steel plate. Lenzing teaches at least one plate 39 for blocking fluid of the chamber 11 from directly striking a sensor 23 (col. 5 lines 9-15 {Figs. 1-3}). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use stainless steel blocking plates for the purpose of protecting fluid from directly contacting the sensor (col. 2 lines 55-63, col. 3 lines 45-67, col. 4 lines 60-64, col. 5 lines 1-15, col. 8 lines 28-34 {Figs. 1-3}). *MPEP 2144.04.*

c. With respect to Claim 5, AAPA discloses a vacuum tube 3 for connecting a gauge 22 with a chamber 1, plasma of the chamber 1, and a sensor 22 disposed at an inner wall of the vacuum tube 3 (pg. 1 [0003], pg. 2 [0003-0004] {Fig. 1}). However, AAPA does not teach at least one plate for blocking the plasma of the chamber from directly striking against a sensor. Lenzing teaches a device with a tubular body 8 and a chamber 11 with at least one plate 39 for blocking fluid of the chamber 11 from directly striking against a sensor 23 (col. 3 lines 45-67, col. 4 lines 60-64, col. 5 lines 1-15 {Figs. 1-3}). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the AAPA with the teachings of Lenzing to include at least one plate for blocking the plasma of the chamber from directly striking against a sensor for the purpose of reducing contamination of solids and fluid particles by diverting fluid flow around the sensor and within the chamber (col. 2 lines 55-63, col. 3 lines 45-67, col. 4 lines 60-64, col. 5 lines 1-15, col. 8 lines 28-34 {Figs. 1-3}).

d. With respect to Claim 6, Lenzing teaches a reticular structure 15 disposed at the front end of a tubular body 8 (col. 3 lines 45-50 {Figs. 1-3}).

e. With respect to Claim 7, AAPA discloses a vacuum tube 3 for connecting a gauge 22 with a dry etch chamber 1, plasma of the dry etch chamber 1, and a sensor 22 disposed at an inner wall of the vacuum tube 3 (pg. 1 [0003], pg. 2 [0003-0004] {Fig. 1}). However, AAPA does not teach at least one plate for blocking the plasma of the chamber from directly striking against a sensor.

Lenzing teaches a device with a tubular body 8 and a chamber 11 with at least one plate 39 for blocking fluid of the chamber 11 from directly striking against a sensor 23 (col. 3 lines 45-67, col. 4 lines 60-64, col. 5 lines 1-15 {Figs. 1-3}). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the AAPA with the teachings of Lenzing to include at least one plate for blocking the plasma of the chamber from directly striking against a sensor for the purpose of reducing contamination of solids and fluid particles by diverting fluid flow around the sensor and within the chamber (col. 2 lines 55-63, col. 3 lines 45-67, col. 4 lines 60-64, col. 5 lines 1-15, col. 8 lines 28-34 {Figs. 1-3}).

f. With respect to Claim 8, AAPA does not teach at least one stainless steel plate. Lenzing teaches at least one plate 39 for blocking fluid of the chamber 11 from directly striking a sensor 23 (col. 5 lines 9-15 {Figs. 1-3}). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use stainless steel blocking plates for the purpose of protecting fluid

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from directly contacting the sensor (col. 2 lines 55-63, col. 3 lines 45-67, col. 4 lines 60-64, col. 5 lines 1-15, col. 8 lines 28-34 {Figs. 1-3}). *MPEP 2144.04.*

g. With respect to Claim 9, Lenzing teaches a reticular structure 15 is located on a front end of a tubular body 8 (col. 3 lines 45-50 {Figs. 1-3}).

h. With respect to Claim 10, Lenzing teaches a wire netting structure 15 (col. 3 lines 45-60 {Figs. 1 and 4}).

Response to Arguments

4. Applicant's arguments with respect to claims 1, 2 and 5-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(6,619,115) (6,684,692) (6,722,196) (6,886,401) (4,981,035) (4,599,895)

(5,163,322) (5,137,026)

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alandra Ellington whose telephone number is (571) 272-2178. The examiner can normally be reached on Monday - Friday, 7:30am - 4:00pm.


7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alandra Ellington
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William Oen
Primary Examiner